

# Virginia Environmental Excellence Program Sample Environmental Enterprise (E2) Application

## Environmental Policy Statement

\_\_\_\_\_ is committed to the protection of the environment for present and future generations. All employees are responsible for incorporating into their planning and work, the actions necessary to fulfill this commitment.

This facility and its employees shall meet this responsibility by endeavoring to accomplish the following:

- Continually improve our environmental stewardship through responsible practices and procedures.
- Practice and support pollution control and prevention, through source reduction and where possible, elimination.
- Meet the requirement of all environmental regulations and whenever possible, strive to exceed these regulations.
- Establish and periodically review environmental objectives and consistently meet targets to prevent pollution and enhance positive impacts on the environment.
- Effectively communicate the intent of this policy to all employees, visitors and suppliers through education and training programs, to improve environmental performance and to increase awareness of environmental issues.
- Promote environmental awareness and maintain open communications with employees and the community concerning the environmental impact of our facility.

The commitment to protect the environment is required of all employees.

Signed: Upper Management \_\_\_\_\_

## **Procedure for Assessing Significant Aspects**

### **Purpose:**

This document describes the procedures for developing the list of facility activities, products, services; and their aspects and impacts. It also describes the criteria and methodology used to determine the significance of the environmental aspects. The determination of the most significant aspects allows the facility to set objectives and targets that can be achieved through the implementation of environmental management programs.

### **Definitions:**

*Activity* – something that an organization performs, usually intentionally. Products and services are the outcome of these activities.

*Aspect* – an element of an organization's activities, products or services that can interact with the environment.

*Environment* – the surroundings in which the Authorities operate, including air, water, land, natural resources, flora (plants), fauna (animals), humans, and their interrelation. Surroundings in this context extend from within an organization to the global system.

*Impact* – any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organization's activities, products or services.

*Operations* – a group of activities performed to achieve a common mission or objective, often within the same physical site.

*Operational Control* – procedure or work instruction used to manage the environmental impacts of an organization's activities. They must be documented and communicated to all relevant employees.

*Significance Criteria* – the standards used, selected by the Core Team, to determine which aspects have the potential to have a substantial impact on the environment.

### **Applicability:**

This procedure applies to all organizations and personnel within the facility fence line.

### **Defining Significant Aspects:**

The EMS Team, comprised of cross functional personnel from the facility, will work to define and document significant aspects. EMS Team Meeting Goals:

- Personnel are briefed on EMS concepts; the EMS program and policy; and the goals of the working session.

- Based on their institutional knowledge, personnel discuss and document a list of activities, products and services that can interact with the environment.
- The EMS Team discusses and documents the environmental aspects and environmental impacts associated with each activity, product or service.
- The significance ranking criteria (documented below) are applied to each aspect to determine an aspect significance score.
- The working group uses the significance threshold (documented below) score for the designation of *significant* aspects and documents these aspects.
- The EMS working group discusses and documents feasible objectives (broad goal) and targets (detailed, measurable performance requirement) for applicable significant aspect.

### **Significance Ranking Criteria and Methodology:**

When the list of aspects has been developed, the EMS Team personnel use their institutional knowledge and best professional judgment to rate each aspect according to the following criteria:

- Legal Requirements Associated with the Aspect
- Frequency of the Environmental Impact
- Severity of the Environmental Impact
- Severity of the Mission Impact
- Community Concerns and Environmental Priorities for the Commonwealth

Details describing the ranking methodology and scale for each criterion are described below.

- *Legal Requirements Associated with the Aspect*  
The EMS working group determines if there are legal or other requirements associated with the management of the aspect. The table below describes the scale for this criterion. Legal requirements (score of 4) include federal, state, or local laws or regulations. Other requirements refer to additional guidelines such as Executive Orders.

Legal Requirements Scale
4 = Legal requirement
3 = Federal other requirement
2 = DoD other requirement
1 = Best Management Practice

➤ *Frequency of the Environmental Impact*

The EMS Team evaluates the frequency of the environmental impact resulting from the environmental aspect under consideration. This is distinguished from the frequency of the activity itself.

Frequency of Environmental Impact Scale
4 = Ongoing or daily
3 = More than once per month
2 = Less than once per month, but more than once per year
1 = Rare/infrequent

➤ *Severity of the Environmental Impact*

Personnel assess the severity of the environmental impact associated with the aspect under consideration. Any aspect associated with a threat to human health warrants a score of 5. For aspects that do not pose a health threat, the environmental impact is assessed and a score of 4 or less is assigned based on decreasing severity of the environmental harm. The assessment takes into account the procedures, safeguards, training, and general nature of the activity that results in the environmental impact.

Severity of Environmental Impact Scale
5 = Severe – threat to human health or damage to the environment that requires great effort to remediate or correct
4 = Serious – no immediate health threat, significant damages to the environment, difficult to remediate
3 = Moderate – harmful to the environment, but correctable
2 = Mild – small potential for environmental harm, but correctable
1 = Insignificant – trivial consequences, easily correctable, or positive environmental impact

➤ *Severity of the Mission Impact*

The EMS Team evaluates the potential of each aspect to affect mission and daily operations. The personnel assess the day-to-day impacts of an aspect. The scale used for this criterion is below.

Severity of Mission Impact Scale
5 = Loss of ability to accomplish critical mission
3 = Mission restrictions
1 = No or minor mission restrictions

➤ *Community Concerns*

The working group assesses the level of concern among the community, including members of the facility and the surrounding population. In addition, the working group considers environmental priorities established by the Virginia Department of Environmental Quality. The assessment is not necessarily based on the facility's actual or potential environmental impact, but rather public perception of the issue or the cumulative impact for the Commonwealth as a whole. The scale used for this criterion is below.

Community Concerns Scale
4 = Legal action
3 = Serious community concern, DEQ priority, political or activist inquiries, intense negative media
2 = Moderate community concern, some media coverage
1 = Community is not currently concerned, but could become so
0 = Community is ambivalent or unconcerned

➤ **Calculation of Aspect Significance**

The EMS Team calculates the score of each aspect using the formula below:

$$\text{Significance Score} = \text{LR} + \text{CC} + \text{F} + \text{EI} + \text{MI}$$

LR: Legal Requirements  
 CC: Community Concerns  
 F: Frequency of Environmental Impact  
 EI: Environmental Impact  
 MI: Mission Impact

The possible significance scores range to 26 with higher scores indicating greater significance. The table below shows an example of the significance scoring for two environmental aspects.

Aspect	Activity/ Task	Legal	Env. Imp. Freq	Env. Imp severity	Mission Impact Severity	Community Concerns	Total	Significant? Y/N
All operations	Solid waste generation	3	4	2	4	3	16	Y
Boilers, generators, furnaces, etc.	Generation of regulated air Emissions	2	4	0	4	2	12	Y

**Significance Threshold:**

Any aspect that receives a score of 12 or more is considered significant.

**Review Process:**

This process will be revisited on an annual basis, as part of the EMS Management Review. If any changes are necessary to the aspects register, significance criteria, significance aspects register, objectives, targets, environmental management plans, or this procedure, the changes will be made at this time.

**Aspects and impacts Matrix:**

ASPECT	ACTIVITY/ TASK	Legal	Env. Imp. Frequency	Env. Imp. Severity	Mission Impact Severity	Community Concerns/ Commonwealth Priority	Total	Significant? Y/N
Use of energy (electricity, natural gas, fuel oil, propane)	All	3	4	2	5	3	17	Y
Use of water	All	3	4	2	5	3	17	Y
Generation of wastewater to sanitary sewer	Vehicle washing, boat washing, construction, special events, bathrooms and porta-potties, kitchens.	4	4	2	1	0	11	N
Generation of storm water runoff	Vehicle washing, construction, grounds maintenance, irrigation runoff, vehicle parking, illicit discharges	4	4	3	1	3	14	Y
Generation of water discharges	Permitted point source discharges	4	2	3	1	3	13	
Groundwater contamination	Leaking petroleum storage tanks	4	2	3	1	3	13	
Air emissions management	All	4	4	2	1	0	11	N
Generation of regulated air emissions	Boilers, furnaces, storage tank emissions, generators, and parts washers, CFC recovery activities, fugitive	4	4	2	1	0	11	N

	CFC emissions from refrigeration equipment							
Generation of non-point source air emissions	Vehicles, landscaping equipment, etc.	1	4	3	1	0	9	N
Solid waste generation and management	All	4	4	3	1	2	14	Y
Generation of universal waste	Activities that generate fluorescent lamps, some pesticides, mercury containing equipment, lead acid batteries	4	3	3	1	1	12	Y
Generation and management of hazardous waste	All	4	4	2	1	1	12	Y
Generation of hazardous waste	Hazardous waste	4	4	2	1	3	14	Y
Generation of hazardous waste	Contaminated soil, groundwater, and surface water	4	1	3	1	1	10	N
Generation of hazardous waste	Asbestos abatement	4	2	1	1	2	10	N
Generation of hazardous waste	Lead paint abatement	4	2	1	1	2	10	N
Control of hazardous materials and reporting (Authorized Use List)	Hazardous materials purchase	3	3	1	1	0	8	N



Solid waste avoidance (recycling/reuse)	Scrap metal	3	3	2	1	0	9	N
Solid waste avoidance (recycling/reuse)	Durable goods and property (office equipment, furniture, computers, etc.)	3	3	1	1	2	10	N
Solid waste avoidance (recycling/reuse)	Recycle the following items: used oil, white paper, mixed paper, cardboard, aluminum, NiCad batteries, lead acid batteries, printer cartridges, silver, metals, plastics (1 and 2), glass, C&D debris, computers, punctured aerosol cans	3	4	1	1	1	10	N
Solid waste avoidance (recycling/reuse)	Consumables and supplies	3	3	2	1	0	9	N
Solid waste avoidance (recycling/reuse)	Recyclables	3	3	2	1	0	9	N
Potential for spills, worker exposure	All	4	4	2	1	1	12	Y
Potential for spills, worker exposure	Hazardous materials storage	4	4	2	1	1	12	Y
Potential for spills, worker exposure	Hazardous materials use	4	4	2	1	1	12	Y
Potential for spills, worker exposure	Consumables and supplies (hazardous	4	4	2	1	1	12	Y

	materials)							
Generation of oil water separator sludge (contractor pick up)	Use of oil/water separators	4	2	2	1	0	9	N
Energy recovery	Generation of oily water (energy recovery)	4	2	2	1	0	9	N
Purchase of recycled products and bio-based products	Procurement and contracting	4	2	1	1	0	8	N
Generation of noise	All	4	1	1	1	1	8	N

## Procedure for Setting Objectives and Targets

### Purpose:

The purpose of this procedure is to outline a consistent means for developing EMS objectives, targets and performance indicators. Objectives and targets will be established to address selected significant environmental. The objectives and targets established with this EMS procedure extend to all levels and functions of the organization(s) where they are applicable.

### Applicability:

This procedure applies to all organizations and personnel within the facility fence line.

### Responsibilities:

- The EMS Team and management will provide support to ensure that EMS procedures are followed.
- Direct Supervisors will adhere to this policy, actively participate in the EMS, and promote the EMS standards amongst their personnel.
- Facility personnel will adhere to this policy, actively and professionally participate in the EMS, and perform their job in an environmentally safe and sound manner.

### Definitions:

Definitions provided here are meant to help explain terms used throughout this procedure.

*Environmental Objective* - Overall environmental goal, arising from the environmental policy that an organization sets for itself to achieve, and which is quantified where practicable.

*Environmental Target* - Detailed performance requirement, quantified where practicable, applicable to the organization or parts thereof, that arises from the environmental objectives, and that needs to be set and met in order to achieve those objectives.

*Environmental Policy* - Statement by the organization of its intentions and principles in relation to its overall environmental performance that also provides a framework for action and for setting of its objectives and targets.

Continual Improvement - Process of enhancing the EMS to achieve improvements in overall environmental performance in line with the organization's environmental policy.

### Procedure

The EMS Team will develop objectives and targets to define:

- The performance objectives (e.g., monitor, study, control or improve) for selected significant environmental aspects;
- The specific, quantified targets which particularize those performance objectives; and

- The planned schedule for achieving targets.

Whenever possible, objectives will be set in measurable terms with specific time frames for their accomplishment to facilitate performance monitoring and trends analysis. Objectives for significant environmental aspects should be set irrespective of their suitability for measurement. In all cases, it is appropriate to establish a baseline against which to measure progress, and as such the first cycle of measurements will act as a baseline against which to quantify future performance.

Objectives and targets will be integrated into Environmental Management Programs (EMPs) that are developed and implemented to stimulate action within individual units, departments, or across all operations within the scope of the EMS. Development of objectives and targets take into account:

- Environmental Policy;
- Identified significant aspects;
- Legal and other requirements;
- Mission requirements;
- Sustainability goals;
- Pollution prevention goals;
- Achievement of continual improvement;
- Technological options;
- Financial, operational, and organizational requirements; and

### **Objectives and Targets:**

<b>Environmental Aspect</b>	<b>Environmental Impact</b>	<b>Objective</b>	<b>Target</b>	<b>Target Date</b>	<b>Responsible Party</b>
Use of Water	Depletion of natural resources	Reduce potable water use	Reduce potable water use by implementing alternative irrigation systems (i.e., rain barrels, etc.) and other water conservation technologies	Implement a minimum of one (1) water conservation initiative annually through end of FY2011	EMS Team Lead with facility personnel cooperation
Use of Energy	Degradation of Air Quality, Contribution to Global Warming	Reduce energy consumption	Reduce energy consumption by implementing a daytime-only cleaning contract and other conservation measures such as shutting down computer systems or HVAC systems overnight	Implement a minimum of one (1) energy conservation measure annually through end of FY2011	EMS Team Lead with facility personnel cooperation
Generation of Solid Waste	Degradation of land, habitat, and water supply	Continue diversion of solid waste from landfill by recycling and reuse	Achieve a 50% diversion rate for solid waste from landfill	End of FY2011	EMS Team Lead with facility personnel cooperation
Generation of Contaminated Storm Water Runoff	Degradation of surface water	Align strategies with regionally focused (if available) efforts to reduce storm water runoff	Reduce contaminated storm water runoff by implementing best management practices utilizing low-impact development strategies (i.e., rain gardens, green roofs, grass swales, etc.)	Implement a minimum of one(1) BMP annually through end of FY2011	EMS Team Lead with facility personnel cooperation

## Pollution Prevention Plan

We are obligated to eliminate or to reduce, where possible, our use of toxic substances, the generation of waste materials and minimize our consumption of energy. Prevention of pollution at the source is the preferred method of reduction. This is the facility's preferred tool for meeting and exceeding regulatory compliance. The Pollution Prevention (P2) Plan was developed to guide pollution prevention efforts. The benefits of P2 are:

- Meet state and national pollution prevention policy goals
- Strengthen the EMS program
- Reduce the long-term liabilities of waste disposal
- Save money by reducing raw material purchases
- Decrease waste treatment costs and disposal costs
- Protect public health and the environment
- Ensure mission readiness and effectiveness

All personnel should understand their roles in ensuring the success of the P2 program and be held responsible for their performance in helping meet its P2 goals.

**Specific P2 efforts include:**

**Fleet**

The fleet has undergone multiple modifications, including changing models of trucks, tire styles, fuel additives, driver classes on fuel economy, monitoring of truck, auxiliary power units and aero-stripping for improve aerodynamics. The current trials include a hybrid tractor, and modified trailer tires. Future trials include possible oil filter modifications, which would potentially eliminate the need for addition oil changes. Current improvements have resulted in fuel efficiency increasing 4% over the past two years.

**Telework**

The facility has instituted a Tele-commuting policy allowing employees to work from home, when feasible. This has reduced overall commuting miles to and from the facility reducing air emissions and conserving natural resources. There is also a policy to avoid unnecessary travel for meetings through increased conference calling and electronic communication. It is estimated that 4,500 gallons of gasoline are being saved each year, when compared to years prior to the implementation of these policies.

**Energy Electrical**

The facility has changed lighting sources from typical fluorescence to low mercury and is working to install solar tubes to allow natural light use during the day and cut electrical use to night only. Renewable energy alternatives like solar and wind generation are also being considered.

**Food Waste**

The facility cafeteria has begun composting food waste on site. Compost is used on site and made available to employees.

**Janitorial**

All cleaning products used on site are certified as 'Green'. This reduces the overall toxicity of chemicals used on site.

*This highlighted section, or similar text, should only be included in VEEP applications from Virginia State Agencies that are attempting to comply with Executive Order 82.*

**Executive Order 82:**

\_\_\_\_\_ State Agency has in place policies and procedures that address at a minimum:

**1. Energy use.**

- Powering down computers when not in use.
- Turning off interior and exterior lights when not needed or posing a security risk.
- Reducing the energy consumption of heating and cooling systems.

## **2. Water use.**

- Eliminating plumbing leaks.
- If applicable, minimizing use of water for irrigation through reduced frequency of watering, timing of watering, and the selection of low water-use landscaping such as drought resistant grass, plants, shrubs and trees.

## **3. Waste reduction.**

- Reducing consumption of paper and other office supplies.
- Reducing the use of disposable supplies.
- Recycling of white paper, mixed paper, plastic, batteries, printer cartridges and aluminum.
- For any agency that performs maintenance on vehicles, the policy shall address recycling of oil and antifreeze.
- Agencies are encouraged to include provisions regarding composting.

## **4. Travel.**

- Carpooling to meetings, use of video conferencing and conference calls in lieu of in-person meetings.
- Purchasing of alternative fuels where available.
- Agencies are encouraged to include restrictions on whether the agency will pay mileage for single-passenger use of personal vehicles for business travel.